



BILLING CODE: 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XA824

Endangered and Threatened Species; Take of Anadromous Fish

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Applications for 13 new scientific research permits, 12 research permit renewals, and one permit modification.

SUMMARY: Notice is hereby given that NMFS has received 26 scientific research permit application requests relating to Pacific salmon, the southern distinct population segment of Pacific eulachon, the southern distinct population segment of Pacific green sturgeon, and three species of rockfish from the Puget Sound/Georgia Basin. The proposed research is intended to increase knowledge of species listed under the Endangered Species Act (ESA) and to help guide management and conservation efforts. The applications may be viewed online at:

https://apps.nmfs.noaa.gov/preview/preview_open_for_comment.cfm.

DATES: Comments or requests for a public hearing on the applications must be received at the appropriate address or fax number (see ADDRESSES) no later than 5 p.m. Pacific standard time on [insert date 30 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: Written comments on the applications should be sent to the Protected Resources Division, NMFS, 1201 NE Lloyd Blvd., Suite 1100, Portland, OR 97232-1274. Comments may also be sent via fax to 503-230-5441 or by e-mail to nmfs.nwr.apps@noaa.gov.

FOR FURTHER INFORMATION CONTACT: Rob Clapp, Portland, OR (ph.: 503-231-2314),
Fax: 503-230-5441, e-mail: Robert.Clapp@noaa.gov). Permit application instructions are
available from the address above, or online at <https://apps.nmfs.noaa.gov>.

SUPPLEMENTARY INFORMATION:

Species Covered in This Notice

The following listed species are covered in this notice:

Chinook salmon (*Oncorhynchus tshawytscha*): threatened Puget Sound (PS); threatened upper Willamette River (UWR); threatened lower Columbia River (LCR); endangered upper Columbia River (UCR); threatened Snake River (SR) spring/summer (spr/sum); threatened SR fall;

Steelhead (*O. mykiss*): threatened PS; threatened UWR, threatened LCR; threatened UCR; threatened SR; threatened middle Columbia River (MCR).

Chum salmon (*O. nerka*): threatened Hood Canal (HC) summer-run, threatened CR.

Coho salmon (*O. kisutch*): threatened LCR, threatened Oregon Coast (OC).

Rockfish: Puget Sound/Georgia Basin (PS/GB) bocaccio (*Sebastes paucispinis*); PS/GB canary rockfish (*Sebastes pinniger*), and PS/GB yelloweye rockfish (*Sebastes ruberrimus*).

Eulachon: the southern Distinct Populations Segment (SDPS) of Pacific eulachon (*Thaleichthys pacificus*).

Pacific green sturgeon (*Acipenser medirostris*): threatened SDPS.

Authority

Scientific research permits are issued in accordance with section 10(a)(1)(A) of the ESA (16 U.S.C. 1531 et. seq) and regulations governing listed fish and wildlife permits (50 CFR 222-226). NMFS issues permits based on findings that such permits: (1) are applied for in good faith;

(2) if granted and exercised, would not operate to the disadvantage of the listed species that are the subject of the permit; and (3) are consistent with the purposes and policy of section 2 of the ESA. The authority to take listed species is subject to conditions set forth in the permits.

Anyone requesting a hearing on an application listed in this notice should set out the specific reasons why a hearing on that application would be appropriate (see ADDRESSES). Such hearings are held at the discretion of the Assistant Administrator for Fisheries, NMFS.

Applications Received

Permit 1290-7R

The Northwest Fisheries Science Center (NWFSC) is seeking to renew a permit that currently allows it to take listed salmonids while conducting research in the lower Columbia River from Bonneville Dam to the mouth of the river. The fish would be drawn from the following species: UCR Chinook and steelhead, SR spr/sum and fall Chinook, SR steelhead, SR sockeye, MCR steelhead, LCR Chinook, LCR coho, LCR steelhead, CR chum, UWR Chinook and steelhead. The purposes of the research are to (1) characterize salmonid species and population level abundance and timing, (2) determine growth rate, size, food habits, and pathogen prevalence and intensity, and (3) investigate the relationship between forage fish and salmonid populations. The research would benefit salmonids and their recovery planning by gathering information on species- and population-level abundance in the Lower Columbia River and helping determine the extent to which diseases and forage fish affect the fishes' growth and survival during the transition from the estuarine to marine environments. The NWFSC would use purse seines to capture the fish; they would then anesthetize them, measure them, scan them for tags, and fin-clip them. Some of the juvenile fish would be intentionally killed for laboratory analyses. The NWFSC would also collect and intentionally kill juvenile salmonids at the

Bonneville Dam juvenile bypass facility. Any fish killed unintentionally would be retained in place of those that otherwise would be sacrificed. A small number of adult salmonids, SDPS green sturgeon, and SDPS eulachon may be captured and immediately released during the course of the research. The NWFSC does not intend to kill SDPS eulachon, but a few may die as a result of the research. No sturgeon are expected to be killed.

Permit 1318-9R

The Oregon Department of Fish and Wildlife (ODFW) is seeking to renew its permit to take juvenile UCR Chinook and steelhead, SR spr/sum and fall Chinook, SR steelhead, SR sockeye, MCR steelhead, LCR Chinook, LCR coho, LCR steelhead, CR chum, UWR Chinook and steelhead, and OC coho in streams in the Willamette and Columbia basins, and on the Oregon coast. The permit would cover the following projects: (1) warm water fish management surveys; (2) investigations of natural production of spring Chinook salmon in the Mohawk system; (3) genetic characterization of rainbow trout in the Upper Willamette System; (4) fish abundance, population status, genetics and disease surveys in the Upper Willamette Basin; (5) native rainbow and cutthroat trout surveys for abundance, size composition, and migration patterns in the mainstem McKenzie River; (6) resident redband population estimates in the Deschutes River; (7) resident redband population estimates in the Crooked River; and (8) fish population sampling in the North Willamette Watershed District. The research would benefit the fish by providing information on population structure, abundance, genetics, disease occurrence, and species interactions. That information would be used to direct management actions to benefit listed species. Juvenile salmonids would be collected via boat electrofishing, and then some of them would be anesthetized, sampled for length and weight, allowed to recover from the anesthesia, and released. Most salmonids would only be shocked and allowed to swim away, or

be netted and released immediately. The ODFW does not intend to kill any of the fish being captured, but a small number may die as an unintended result of the activities.

Permit 1330-5R

Weyerhaeuser Company (WeyCo) is seeking to renew its permit to annually take juvenile LCR Chinook salmon, LCR coho salmon, and LCR steelhead while conducting research designed to determine salmonid abundance, distribution, and productivity in the Toutle River subbasin and on lands owned by WeyCo around Mt. St. Helens in Washington. The information would be used to help develop and implement effective fish-conscious forest management practices and regulations. The research would benefit listed species by contributing information to help WeyCo maintain high quality habitat and development recovery plans for listed species. Juvenile salmonids would be collected using backpack electrofishing equipment, anesthetized, sampled for biological data (identified, measured, weighed), allowed to recover from the anesthesia, and released. WeyCo does not intend to kill any of the fish being captured, but a small number may die as an unintentional result of the activities.

Permit 1339 – 3R

The Nez Perce Tribe (NPT) under the authorization of the Columbia River Intertribal Fish Commission (CRITFC) is seeking to renew its permit to annually take adult and juvenile SR spr/sum Chinook salmon and SR steelhead while conducting research in a number of the tributaries to the Imnaha River (Cow, Lightning, Horse, Big Sheep, Camp, Little Sheep, Freezeout, Grouse, Crazyman, Mahogany, and Gumboot Creeks), the Grande Ronde River (Joseph Creek, Wenaha and Minam rivers) the Clearwater River (South Fork Clearwater River and Lolo Creek), and the Snake River (Lower Granite Dam adult trap). The Imnaha and Grande Ronde Rivers are in Northeast Oregon, the Clearwater is in Idaho, and the work in the Snake

River would take place in Washington. The permit would be a renewal and expansion of work the NPT has been conducting for over a decade in the Northwest.

The purpose of the research is to acquire information on the status (escapement abundance, genetic structure, life history traits) of juvenile and adult steelhead in the Imnaha, Grande Ronde, and Clearwater River basins. The research would benefit the listed species by providing information on current status that fishery managers can use to determine if recovery actions are helping increase wild Snake River salmonid populations. Baseline information on steelhead populations in the Imnaha, Grande Ronde, and Clearwater River basins would also be used to help guide future management actions. Adult and juvenile salmon and steelhead would be observed, harassed, handled, and marked. The researchers would use temporary/portable picket and resistance board weirs and rotary screw traps to capture the fish and would then sample them for biological information (fin tissue and scale samples). They may also mark some of the fish with opercle punches, fin clips, dyes, and PIT, floy, and/or Tyvek disk tags. Adult steelhead carcasses would also be collected and sampled. The researchers do not intend to kill any of the fish being captured, but a small number may die as an unintended result of the activities.

Permit 1341 – 4R

The Shoshone-Bannock Tribes (Tribes) are seeking to renew and modify their permit to take SR sockeye salmon and SR spr/sum Chinook salmon while conducting research designed to estimate their overwinter survival and downstream migration survival and timing. The researchers would also conduct limnological studies on the lakes and monitor sockeye rearing. This research—which has been conducted every year since 1996—would continue to provide information on the relative success of the Pettit and Alturas Lakes sockeye salmon reintroduction programs and thereby benefit the listed fish by improving those programs. Juvenile SR sockeye salmon, spr/sum Chinook salmon,

and steelhead would be collected at Pettit and Alturas Lakes, ID, using rotary screw traps and weirs. The fish would be sampled for biological information and released or tagged with passive integrated transponders and released. In addition, to determine trap efficiencies, a portion of the captured juvenile SR sockeye salmon would be marked with a small cut on their caudal fins, released upstream of the traps, captured at the traps a second time, and released. The Tribes do not intend to kill any of the fish being captured, but a small percentage may die as an unintended result of the research activities.

Permit 1345-7R

The Washington Department of Fish and Wildlife (WDFW) is seeking to renew for five years a research permit that currently allows them to take juvenile and adult PS Chinook salmon, LCR Chinook salmon, LCR coho salmon, LCR steelhead, and PS steelhead. The WDFW administers a multitude of water bodies through the state of Washington, and this permit would provide them with coverage throughout Puget Sound and the Lower Columbia River basin. The purpose of the warmwater fish surveys is to provide stock assessment of inland game fish communities and thereby improve fishery management. The research would benefit salmonids by helping managers write warmwater fish species harvest regulations that reduce potential impacts on listed salmonids. The WDFW proposes capturing fish using boat electrofishing, fyke nets, and gillnets. After being captured, the listed salmon and steelhead would be placed in aerated live wells, identified, and released. The researchers do not propose to kill any of the listed salmonids being captured, but a small number may die as an unintended result of the activities.

Permit 1379 – 6R

The Columbia River Inter-Tribal Fish Commission (CRITFC) is seeking to renew a permit that currently allows them to take listed salmonids (UCR steelhead and Chinook; LCR

steelhead and Chinook; MCR steelhead; and SR steelhead, spr/sum Chinook, fall Chinook, and sockeye) while conducting research designed to increase what we know about the status and productivity of various fish populations, collect data on migratory and exploitation (harvest) patterns, and develop baseline information on various population and habitat parameters in order to guide salmonid restoration strategies. Much of the work in the permit has been conducted for at least 14 years—first under permit 1134, and then under five previous versions of 1379. The permit would comprise four studies: Project 1--Juvenile Upriver Bright Fall Chinook Sampling at the Hanford Reach; Project 2--Adult Chinook, Sockeye, and Coho Sampling at Bonneville Dam; Project 3--Adult Sockeye Sampling at Tumwater and Wells Dams; and Project 4--Acoustic trawl survey for Lake Wenatchee juvenile sockeye salmon. This renewal would increase slightly the number of fish CRITFC is allowed to handle. The research, as a whole, would benefit listed fish by helping managers set in-river and ocean harvest regimes so that they have minimal impacts on listed populations. It would also help managers prioritize projects in a way that gives maximum benefit to listed species—including projects designed to help the listed fish recover.

The CRITFC would obtain fish from the adult collection facilities at Bonneville, Wells, and Tumwater dams. The fish would be anesthetized, measured, examined for marks, scale-sampled, and allowed to return to the river. The researchers would also use beach- and stick seines to capture and tag juvenile fish in the Hanford reach of the Columbia River and capture fish during mid-water trawls in Lake Wenatchee. Those fish that are not immediately released upon capture would be transported to a holding facility where they would be anesthetized, examined for marks, adipose-clipped, coded wire tagged, allowed to recover, and released. The CRITFC does not intend to kill any of the fish being captured but a small number may die as an unintended result of the activities.

Permit 1525-5M

The NWFSC is seeking to modify its permit that currently allows it to annually take listed salmonids while studying habitat occurrence, diet, contaminant concentrations, and health indicators in juvenile salmonids from the Lower Willamette and Columbia Rivers. The NWFSC is requesting to increase the number of juvenile fish they may take from the following species: SR spring/summer Chinook salmon, SR fall Chinook salmon, SR steelhead, UCR Chinook salmon, UCR steelhead, MCR steelhead, LCR Chinook salmon, LCR steelhead, UWR Chinook salmon, UWR steelhead, and CR chum salmon. The purposes of the study are to (1) determine contaminant concentrations in fish, (2) understand bioaccumulation in juvenile salmon and determine site specific factors, (3) analyze for the presence of physiological biomarkers, and (4) investigate the presence of indicators of exposure to environmental estrogens. The research would benefit the fish by providing information to resource managers on contaminant presence and concentrations, fish presence, and habitat parameters. The NWFSC would collect samples with seines or high speed rope trawls in the lower Willamette River, Oregon, and in the Columbia River from Bonneville Dam to the mouth. Researchers would handle juvenile fish and intentionally kill some of them to determine pathogen prevalence and intensity, biochemical composition, histopathological attributes, and for stomach content analyses.

Permit 1566-3R

The NWFSC is seeking to renew for 5 years a research permit that currently allows them to take juvenile PS Chinook salmon, HC summer-run chum salmon, and PS steelhead. The researchers would sample fish throughout the Puget Sound—emphasizing urban bays such as Elliott Bay, Port Gardner Bay, and Commencement Bay. The objective of this study is to sample outmigrant juvenile salmon from various embayments in the Puget Sound area and screen them

for exposure to estrogenic compounds, PBDEs, pharmaceuticals, and personal care products. Juvenile Chinook salmon are anticipated to be the most affected by these contaminants because of their extended estuarine residence, so the NWFSC has chosen them as the target species for this study. The research would benefit Chinook by identifying areas in Puget Sound where they may be at risk due to contaminant exposure, so appropriate toxics reduction activities can be undertaken. The NWFSC proposes to use beach seines to capture fish every 6 to 8 weeks between May and September at approximately seven locations. Up to 60 juvenile Chinook salmon per site per sampling event would be weighed, measured, and euthanized with MS-222. The NWFSC would take bile, plasma, and stomach contents from the fish and then conduct whole-body analyses on them. Juvenile Chinook and other fish species not needed for sample collection would be counted, identified, and released. Any PS Chinook unintentionally killed during the research would be used in lieu of a fish that would otherwise be sacrificed.

Permit 1568-4R

The NWFSC is seeking to renew for 5 years a research permit that currently allows them to take juvenile PS Chinook salmon and PS steelhead in the marshes, channels, and near-shore areas of the lower 10 miles of mainstem channel of the Snohomish River and in Ebey, Union, and Steamboat sloughs. The purposes of the research are to understand (1) how habitat use within the estuary varies with life history type, (2) how habitat use varies within and between years, and (3) how selected biotic and physical factors affect patterns of habitat use. This research would benefit listed salmon by providing information to help recovery planning and monitoring in the Snohomish River estuary and other estuaries of the Puget Sound. The NWFSC proposes to use beach seines to capture fish. The fish would be anesthetized, measured, weighed, tissue-sampled, and checked for external marks and coded-wire tags depending on the species. A

small portion of the captured juvenile PS Chinook would be killed for whole-body analysis, but most are not intended to be sacrificed. At the lab, specimens would be thawed, weighed, and measured. Then the researchers would remove and preserve fish body tissues, otoliths, and coded wire tags (from any hatchery fish). Any PS Chinook unintentionally killed during the research would be used in lieu of a fish that would otherwise be sacrificed.

Permit 1590-4R

The NWFSC is seeking to renew for 5 years a research permit that currently allows them to take juvenile and sub-adult PS Chinook salmon, HC summer-run chum salmon, PS steelhead, and PS/GB bocaccio. The NWFSC research may also cause them to take the following species for which there are currently no ESA take prohibitions: the SDPS eulachon, PS/GB canary rockfish, and PS/GB yelloweye rockfish. Sampling sites would be located throughout the Puget Sound and San Juan Islands, Washington. The purposes of NWFSC's research are (1) to describe the behavior and life history of resident Chinook salmon and (2) determine whether the proportion of PS Chinook salmon adopting a resident life strategy varies among populations and hatchery stocks. This information would be used to develop a conceptual model of the life history of resident PS Chinook. The research would benefit listed salmonids by helping managers develop a better understanding of the abundance, distribution, and habitat requirements of this life history strategy. The NWFSC proposes to use shoreline and boat angling, beach seining, and purse seining to capture the fish. All non-target species would be released directly from the net or line. Captured PS Chinook would be anesthetized, measured, checked for fin clips or coded wire tags, and fin clipped for tissue samples. Some first- and second-year PS Chinook would be outfitted with acoustic transmitters and tracked using an array of fixed

acoustic receivers throughout Puget Sound. The researchers do not propose to kill any of the listed fish being captured, but a small number may die as an unintended result of the activities.

Permit 1598-3R

The Washington State Department of Transportation (WSDOT) is seeking to renew for 5 years a research permit that currently allows them to take juvenile PS Chinook salmon, UCR spring-run Chinook salmon, SR spring/summer-run Chinook salmon, SR fall-run Chinook salmon, LCR Chinook salmon, HC summer-run chum salmon, CR chum salmon, LCR coho salmon, OL sockeye salmon, SR sockeye salmon, LCR steelhead, PS steelhead, MCR steelhead, SR steelhead, and UCR steelhead. The WSDOT research may also cause them to take SDPS eulachon—for which there are currently no ESA take prohibitions. Sample sites would be located throughout the state of Washington. The purposes of WSDOT's research are to determine the distribution and diversity of anadromous fish species in waterbodies crossed by or adjacent to the state transportation systems (highways, railroads, and/or airports). This information would be used to assess the impacts projects proposed at those facilities may have on listed species. The research would benefit the listed species by helping WSDOT minimize project impacts on listed fish to the greatest extent possible. Depending on the size of the stream system, the WSDOT proposes to use dip nets, stick seines, baited gee minnow traps, or electrofishing to capture the fish. The captured fish would be identified and immediately released. The researchers do not propose to kill any of the listed fish being captured, but a small number may die as an unintended result of the activities.

Permit 1601-3R

The United States Fish and Wildlife Service (FWS) is seeking to renew for 5 years a research permit that currently allows them to take juvenile and adult PS Chinook salmon and PS

steelhead. Sampling sites would be located in Thornton, Piper's, and Venema Creeks in Seattle, Washington (Lake Washington subbasin). The purpose of FWS's research is to gather information that would help resource managers plan restoration projects by helping determine which project types are most effective at mitigating the effects of urbanization. The research would benefit the listed species by determining which restoration strategies are effective in restoring fish habitat and populations and improve overall salmon habitat restoration. The FWS proposes capturing fish using the three-pass electrofishing method. Block nets would be placed at the upper and lower end of a habitat site; and with a backpack electrofishing unit, three sequential passes would be conducted. Fish stunned during electrofishing would be captured with a dip net, identified to species, placed in an aerated holding bin, and released. The researchers do not propose to kill any of the listed salmonids being captured, but a small number may die as an unintended result of the activities.

Permit 16069

The City of Portland is seeking a five-year permit to take listed salmonids and SPDS green sturgeon while developing the Portland Watershed Management Plan (Plan). The purpose of the Plan is to improve watershed health in the Portland area. Researchers for the City of Portland would sample 32 sites a year for (1) water chemistry (e.g. temperature, dissolved oxygen, nutrients, pathogens); (2) water level and velocity; (3) physical habitat characteristics (e.g. plant composition, substrate composition, and bank condition); and (4) fish, amphibian, and reptile abundance and diversity. The research would benefit listed salmonids by producing data to be used in conserving and restoring critical habitat. The researchers would use boat and backpack electrofishing equipment to capture, handle, and release juvenile UCR Chinook and steelhead, SR spr/sum and fall Chinook, SR steelhead, SR sockeye, MCR steelhead, LCR

Chinook, LCR coho, LCR steelhead, CR chum, UWR Chinook and steelhead, and OC coho in the Columbia and Willamette rivers and tributaries in Portland, Oregon. The researchers would avoid contact with adult fish but may shock a few adult salmonids as well as adult SDPS eulachon and SDPS green sturgeon. The researchers do not expect to kill any listed fish, but a small number may die as an unintended result of the research activities.

Permit 16446

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) are seeking a 5-year permit to take MCR steelhead and, possibly, SR spring/summer Chinook salmon during the course of research designed to monitor listed fish population status in the Walla Walla River watershed, Washington. The data gathered (on fish abundance, trends, genetics, diversity, productivity, and population structure) would be used to inform management decisions regarding land use activities and listed salmonid recovery planning in the Walla Walla subbasin. The researchers would use rotary screw traps and backpack electrofishing units to capture the fish. At the screw traps, the fish would then be identified, measured, weighed, tissue sampled, implanted with PIT-Tags (if they do not already have tags), and released. Fish captured via electrofishing would be handled, measured, allowed to recover, and released in a safe area. Some adult carcasses would also be sampled. The researchers do not expect to kill any of the fish being captured, but a small number may die as an unintended result of the research activities.

Permit 16470

Cramer Fish Sciences (CFS) is seeking a 1-year permit to annually capture, handle, and release MCR steelhead in the 1-mile reach just downstream from Bowman Dam on the Crooked River, Oregon. The purpose of the research is to establish baseline conditions (population numbers, presence, etc.) among the indigenous fish species in the action area so that it can be

determined what effect the construction (and operation) of a small hydroelectric facility at Bowman Dam may have on those species. The research will benefit listed species by helping managers at the power facility tailor their operations to cause the least possible harm to the species that may be affected. The researchers will use backpack electrofishing equipment to capture the MCR steelhead. They will then measure the fish, allow them to recover, and release them back to the capture site. The researchers do not expect to kill any listed fish, but a small number may die as an unintended result of the research activities.

Permit 16484

Symbiotics Energy is seeking a 1-year permit annually capture, handle, and release MCR steelhead at a trapping facility just downstream from Bowman Dam on the Crooked River, Oregon. The study has two goals: (1) to describe the existing aquatic resources in the Crooked River downstream of a proposed hydroelectric project at Bowman Dam, and (2) to determine the survival and injury rates of various species and sizes of fish as they attempt to migrate through the existing flow release facilities at Bowman Dam. The research would benefit the fish by helping managers at the power facility determine the best way to conduct their operations while mitigating adverse effects on local fauna. The researchers would capture the MCR steelhead fish at a screw trap, measure them, and release them back to the river. The researchers do not expect to kill any listed fish, but a small number may die as an unintended result of the research activities.

Permit 16521

The WDFW is seeking a 5-year permit to annually capture, handle, and release juvenile UCR steelhead and Chinook salmon in the Hanford reach of the Columbia River and near the Tri-Cities, Washington. The purpose of the research is to gather data on fall Chinook abundance,

length frequency distribution, and losses in the area. The information collected from these surveys has been used and continues to be used to evaluate protections for juvenile fall Chinook under the Hanford Reach Fall Chinook Protection Program Agreement and gauge the efficacy of the Coded Wire Tagging Program for marking of wild Up-River Bright fall Chinook in the Hanford Reach. These surveys can provide biologists and managers with definitive data on the presence of or impacts on both non-listed and ESA Listed Chinook and steelhead residing in near shore habitats in this area of the Columbia River. These data, in turn, would be used to help guide management actions for the benefit of the listed species in the future. The researchers would use beach seines and backpack electrofishing equipment to capture the fish. The captured fish would be anesthetized, measured, allowed to recover, and released back to the river. The researchers do not expect to kill any listed fish, but a small number may die as an unintended result of the research activities.

Permit 16550

The Wild Fish Conservancy (WFC) is seeking a 5-year research permit to annually take juvenile and adult PS Chinook salmon, HC summer-run chum salmon, PS steelhead, PS/GB bocaccio, and SDPS green sturgeon. The WFC research may also cause them to take SDPS eulachon and PS/GB canary rockfish—for which there are currently no ESA take prohibitions. Sampling would take place in the nearshore habitats of Hood Canal and in the Nisqually River estuary. The purpose of the research is to study temporal and spatial usage patterns of juvenile salmon in critical rearing habitats of nearshore habitats. The research would benefit the listed species by helping inform conservation and habitat restoration actions. The WFC would use beach seines and fyke nets to capture the fish. Once captured, all fish would be held in aerated five-gallon buckets of seawater, enumerated by species, measured for length, scanned for coded

wire tags (CWT), inspected for adipose fin clips, fin clipped for genetic samples (only from wild juvenile Chinook), and released. To determine their hatchery of origin, hatchery Chinook and coho salmon with coded wire tags would be euthanized using an overdose of MS-222. The researchers do not propose to kill any other listed species being captured, but a small number may die as an unintended result of the activities.

Permit 16612

Terrafilia is seeking a 5-year research permit to annually take juvenile PS Chinook salmon and PS steelhead. Sampling sites would be located in Cornet Bay on the northern shoreline of Whidbey Island in Deception Pass State Park. The purpose of Terrafilia's research is to monitor juvenile PS Chinook salmon response to restoration activities in Cornet Bay. The research would benefit the listed species by determining if the region's restoration strategies effectively restore fish habitat and populations. Terrafilia would use a small beach seine to capture the fish. The surveys would be conducted twice a month at 10 sites from early March through the end of June to August. One beach seine set would be made at each site per each sampling day. All fish would be enumerated by species, and fork lengths would be measured for the first 20 individuals of each species. The researchers do not propose to kill any other listed species being captured, but a small number may die as an unintended result of the activities.

Permit 16666

The FWS is seeking a 5-year permit to take listed salmonids while conducting research on hatchery-origin steelhead in Abernathy Creek, Washington. The goal is to determine the natural reproductive success and relative fitness of hatchery-origin and natural-origin steelhead and to assess the overall demographic effects of hatchery fish supplementation in Abernathy Creek relative to two adjacent control streams. The research would benefit listed salmonids by

producing data to be used in hatchery and genetic management plans. The research was previously permitted under a separate research authorization and has been ongoing for several years. The FWS would use backpack electrofishing equipment to capture, handle, and release juvenile salmonids. Steelhead are not listed in these streams, but the FWS have captured juvenile LCR coho salmon and observed adult LCR Chinook salmon in previous years of research. The FWS would avoid electrofishing near adult coho and Chinook. The researchers do not expect to kill any listed fish, but a small number may die as an unintended result of the research activities.

Permit 16702

The NWFSC is seeking a 5-year research permit to annually take juvenile PS Chinook salmon and PS steelhead in the Snohomish River estuary. The purposes of the research is to monitor juvenile PS Chinook salmon habitat use in response to multiple restoration activities at the Qwuloolt restoration site adjacent to Ebey Slough. Specifically, the goals are to identify the life history types present, their spatial and temporal distribution, their feeding ecology, and interactions with other biota. The research would benefit the listed species by determining if the restoration strategies are effectively restoring fish habitat and increasing fish populations.

Sampling would take place year round: biweekly from February to September, and then once a month from October to January. Both beach seines (mainstem habitat) and fyke traps (tidal channels) would be used to quantify fish distribution throughout the project area and in adjacent restoration sites. Up to 15 marked and unmarked, juvenile Chinook salmon (10 from each beach seine sampling day, five from each fyke trap site) would be sacrificed using a lethal dose of MS-222 and taken to the lab for further processing. All other juvenile PS Chinook and all PS steelhead captured would be measured (fork length), counted, and released. Any PS Chinook

unintentionally killed during the research would be used in lieu of a fish that would otherwise be sacrificed.

Permit 16741

The FWS is seeking a 5-year permit to annually capture, handle, and release adult and juvenile MCR steelhead during the course of research designed to describe life history patterns of fluvial bull trout in the lower Walla Walla basin and investigate their use of the mainstem Columbia and lower Walla Walla Rivers. The research would benefit listed species by generating data to be used in local recovery planning efforts and in evaluating the effects of flow management actions in the mainstem Columbia and Walla Walla Rivers. The researchers would use sing nets, hook-and-line fishing, and screw traps to capture the fish. The captured fish would be identified, measured, and quickly released back to the river. The researchers do not expect to kill any listed fish, but a small number may die as an unintended result of the research activities.

Permit 16751

The United States Geological Survey (USGS) is seeking a 5-year permit to annually take juvenile and adult PS Chinook salmon, HC summer-run chum salmon, and PS steelhead. The USGS's research may also cause them to take SDPS eulachon—for which there are currently no ESA take prohibitions. Sampling sites would be in the Cedar, Dungeness, Nooksack, Skagit, Skykomish, Snohomish, Snoqualmie, and Stillaguamish river systems of the Puget Sound. The purpose of USGS's research is to identify and assess Pacific lamprey distribution in Puget Sound watersheds. The research would benefit the listed species by providing information about salmonid distribution and about Pacific lamprey, an important component to the Puget Sound ecosystem. The lamprey would be captured via backpack electrofishing and the use of seines. Sampling would target silt-mud substrates that are preferred habitats for juvenile lamprey but are

unlikely to harbor salmonids. Samples would be taken in the late summer and fall before peak lamprey emigration. Electrofishing methods would be modified to target juvenile lamprey and would be unlikely to harm them or other fish species. A subsample of the captured lamprey would be measured and weighed (up to 30 per site) and up to five fish per site may be tissue sampled or sacrificed. All other fish (including all listed fish) would be released at the capture site. The researchers do not propose to kill any other listed species being captured, but a small number may die as an unintended result of the activities.

Permit 16798

The FWS is seeking a 5-year research permit to annually take juvenile and adult PS Chinook salmon and PS steelhead. Sampling sites would be located in the south fork of the Skokomish River. The purpose of FWS's research is to complete an extensive assessment of engineered logjams (ELJs) placed in the Skokomish River by comparing a reach where ELJs were placed with an adjacent reach lacking ELJs. The research would benefit the listed species by assessing if the ELJs increase habitat diversity for both juvenile (rearing) and adult (holding, spawning) salmon and stabilize substrate in the active channel. The FWS proposes to capture fish using a combination of beach and purse seining, electrofishing, and snorkeling. Captured fish would be PIT-tagged and injected with elastomer dyes, or soaked in a Bismarck brown dye. Approximately 25 fish per site would be subjected to gastric lavage. All fish would be released at their capture sites. The researchers do not propose to kill any fish, but a small number may die as an unintended result of the activities.

Permit 16918

The Wild Fish Conservancy (WFC) is seeking a 5-year research permit to annually take adult SDPS green sturgeon. The WFC research may also cause them to take SDPS eulachon—

for which there are currently no ESA take prohibitions. Sampling would take place in the Grays Harbor estuary and the lower, tidally-influenced portions of its major tributaries. The purpose of WFC's research is to document the distribution, abundance, habitat use, and timing of juvenile salmonids and other fishes in the Grays Harbor estuary. The research would benefit listed species by helping managers plan salmonid habitat restoration and protection projects. Sampling would consist of beach seining and fyke netting. For green sturgeon, the researchers would measure fork length, photograph scutes, and release the fish. Eulachon would be transferred to buckets, measured for fork length (to determine potential reproductive status), enumerated, and released. The researchers do not propose to kill any fish, but a small number may die as an unintended result of the activities.

This notice is provided pursuant to section 10(c) of the ESA. NMFS will evaluate the applications, associated documents, and comments submitted to determine whether the applications meet the requirements of section 10(a) of the ESA and Federal regulations. The final permit decisions will not be made until after the end of the 30-day comment period. NMFS will publish notice of its final action in the FEDERAL REGISTER.

Dated: November 10, 2011.

Marta Nammack, Acting Chief, Endangered Species Division,
Office of Protected Resources, National Marine Fisheries Service

